

You can fool some of the people some of the time and all of the people if ten percent of them are really convinced of their position

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Well, [the story](#) is that "scientists at Rensselaer Polytechnic Institute have found that when just 10 percent of the population holds an unshakable belief, their belief will always be adopted by the majority of the society." That's a pretty bold statement. How the heck could you even test for such a thing?

It turns out, the study, [Social consensus through the influence of committed minorities \(pdf\)](#), used an algorithmic model called a binary agreement model. Not as messy as asking people about their opinions and how strongly they hold them, the idea here is that a person can have opinion A or opinion B. If you interact with someone with the same opinion, you keep your opinion. If you interact once with someone with a different opinion, you hold both opinions. And if you interact a second time with someone of a different opinion, you switch to that opinion.

Here's the chart from the study that shows how all that works:

In this case, the Bs don't change their mind; they're "unshakable."

So the question is how many unshakable Bs does it take in a group having random interactions to convince all the As? As you might imagine, the study is a whole lot of the maths and not a lot of case studies or anecdotes. If you don't believe this model reflects real humans, I don't know how to convince you otherwise. I'm only a social science spectator but it seems plausible that when people interact with others of different opinions they can end up adopting those opinions.

Looking for this at play in the wild after the jump...

Where do we see this dynamic at play in the real world? The researchers cite "the suffragette movement in the early 20th century and the rise of the American civil-rights movement that started shortly after the size of the African-American population crossed the 10% mark" as examples of their 10% tipping point.

Of course, it's backward to take an example and try to make it fit a study's conclusion but hey, does the sudden change in public opinion they're talking about remind you at all of the trajectory of polling on gay marriage? You don't see it so much in [this gallup chart](#), but check out the trend line on [this chart](#) (pdf) from a survey [released yesterday](#), commissioned by a group called Freedom to Marry:

I think we'd have to dig deeper into the "strongly support"/"strongly oppose" numbers to get at the unshakables described in the Rensselaer study, but it's an impressive demonstration that a tipping point exists at all. The whole subject gives me a new respect for the ability of small groups to break into the mainstream. I wonder if there'd be a way to graph the opinions of the Tea Party. Or if there's a discernible tipping point in the public opinion of alternative rock in the late 80s/early 90s. Did Lollapalooza 1 mark a 10% tipping point?

Bonus reading: While looking for a free version of the Rensselaer study I found a free book on the subject of minority influence: [The social psychology of minority influence](#) (pdf). /// strangely, this link only seems to work when Google Scholar is the referring URL. It's [the first result here](#).